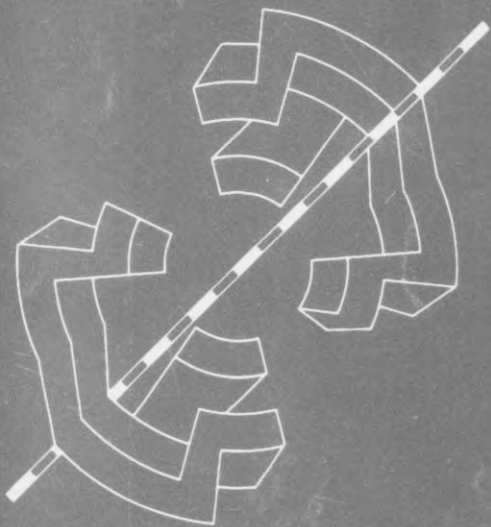


ISSN 0012-365X

DISCRETE MATHEMATICS



MASTER INDEX
VOLUMES 171-180

NORTH-HOLLAND

DISCRETE MATHEMATICS

Editor-in-Chief Peter L. Hammer, Piscataway (NJ)

Advisory Editors

C. Berge, Paris
A.J. Hoffman,
Yorktown Heights (NY)

V.L. Klee, Seattle (WA)
R.C. Mullin, Waterloo
G.-C. Rota, Cambridge (MA)

V.T. Sós, Budapest
J.H. van Lint, Eindhoven

Board of Editors

M.S. Aigner, Berlin
B. Alspach, Burnaby
G.E. Andrews, Univ. Park (PA)
A. Barlotti, Firenze
C. Benzaken, Grenoble
J.-C. Bermond,
Sophia-Antipolis
N.L. Biggs, London
B. Bollobás, Memphis (TN)
R.A. Brualdi, Madison (WI)
T.H. Brylawski,
Chapel Hill (NC)
P.J. Cameron, London
P. Camion, Le Chesnay
G. Chartrand, Kalamazoo (MI)

V. Chvátal, Piscataway (NJ)
D. Foata, Strasbourg
A.S. Fraenkel, Rehovot
P. Frankl, Tokyo
A.M. Frieze, Pittsburgh (PA)
I.M. Gessel, Waltham (MA)
R.L. Graham,
Florham Park (NJ)
A. Hajnal, Budapest
F. Harary, Las Cruces (NM)
D.M. Jackson, Waterloo
J. Kahn, Piscataway (NJ)
G.O.H. Katona, Budapest
D.J. Kleitman,
Cambridge (MA)

A.V. Kostochka, Novosibirsk
L. Lovász, New Haven (CT)
I. Rival, Ottawa
A. Rosa, Hamilton
S. Rudeanu, Bucharest
H. Sachs, Ilmenau
J. Schonheim, Tel-Aviv
N.J.A. Sloane
Florham Park (NJ)
C. Thomassen, Lyngby
W.T. Tutte, Newmarket
D.J.A. Welsh, Oxford
R. Wille, Darmstadt
D.R. Woodall, Nottingham
H.P. Yap, Singapore

Editorial Manager Nelly Segal **Issue Manager** Mick van Gijlswijk

Publication Information. Discrete Mathematics (ISSN 0012-365X). For 1998 volumes 178–193 are scheduled for publication. A combined subscription to Discrete Mathematics and Discrete Applied Mathematics (Vols. 80–88) at reduced rate is available. Subscription prices are available upon request from the Publisher. Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by surface mail except to the following countries where air delivery via SAL is ensured: Argentina, Australia, Brazil, Canada, Hong Kong, India, Israel, Japan, Malaysia, Mexico, New Zealand, Pakistan, China, Singapore, South Africa, South Korea, Taiwan, Thailand, USA. For all other countries airmail rates are available upon request. Claims for missing issues must be made within six months of our publication (mailing) date. For orders, claims, product enquiries (no manuscript enquiries) please contact the Customer Support Department at the Regional Sales Office nearest to you:

New York, Elsevier Science, P.O. Box 945, New York, NY 10159-0945, USA. Tel: (+1) 212-633-3730, [Toll Free number for North American Customers: 1-888-4ES-INFO (437-4636)], Fax: (+1) 212-633-3680, E-mail: usinfo-f@elsevier.com

Amsterdam, Elsevier Science, P.O. Box 211, 1000 AE Amsterdam, Netherlands, Tel: (+31) 20-485-3757, Fax: (+31) 20-485-3432, E-mail: nlinfo-f@elsevier.nl

Tokyo, Elsevier Science, 9-15, Higashi-Azabu 1-chome, Minato-ku, Tokyo 106, Japan. Tel: (+81) 3-5561-5033, Fax: (+81) 3-5561-5047, E-mail: info@elsevier.co.jp

Singapore, Elsevier Science, No. 1 Temasek Avenue, #17-01 Millenia Tower, Singapore 039192. Tel: (+65) 434-3727, Fax: (+65) 337-2230, E-mail: asiainfo@elsevier.com.sg

© 1998, Elsevier Science B.V. (North-Holland)

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Publisher, Elsevier Science B.V., Copyright and Permissions Department, P.O. Box 521, 1000 AM Amsterdam, Netherlands.

Special regulations for authors—Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the Publisher. This transfer will ensure the widest possible dissemination of information.

Special regulations for readers in the USA—This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the US Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. The fee indicated on the first page of an article in this issue will apply retroactively to all articles published in the journal, regardless of the year of publication. This consent does not extend to other kinds of copying such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the Publisher for such copying.

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. Although all advertising material is expected to conform to ethical standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

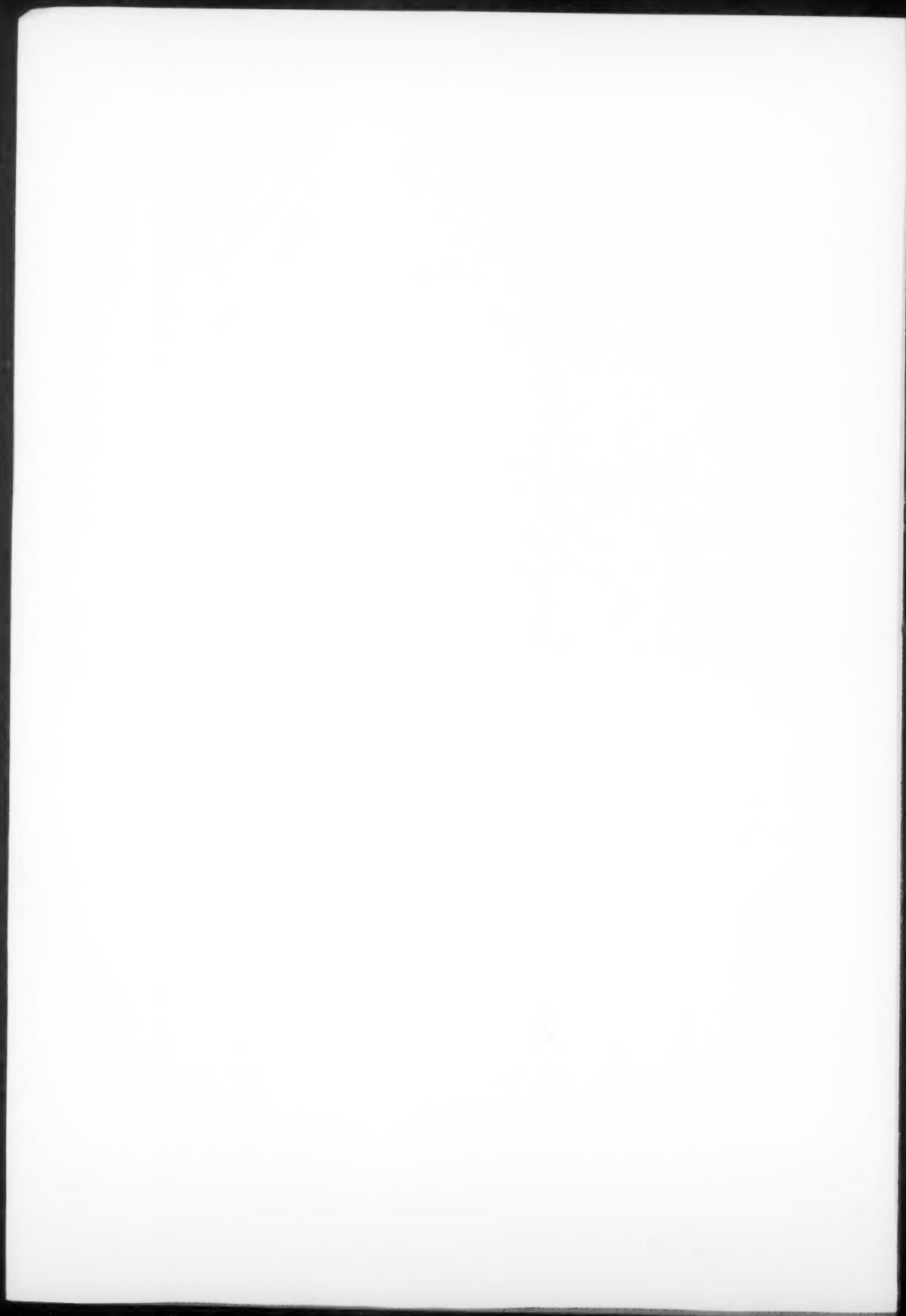
© The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper)

Published monthly

0012-365X/98/\$19.00

Printed in the Netherlands

DISCRETE MATHEMATICS



DISCRETE MATHEMATICS

MASTER INDEX
VOLUMES 171-180



ELSEVIER, Amsterdam-Lausanne-New York-Oxford-Shannon-Tokyo

Abstracted/Indexed in: ACM Computing Reviews, Cambridge Scientific Abstracts, Current Contents: Physical, Chemical & Earth Sciences, International Abstracts in Operations Research, Mathematical Reviews, PASCAL, Science Citation Index, Zentralblatt für Mathematik.

© 1998, Elsevier Science B.V. All rights reserved

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Publisher, Elsevier Science B.V., Copyright and Permissions Department, P.O. Box 521, 1000 AM Amsterdam, Netherlands.

Special regulations for authors—Upon acceptance of an article by the journal, the author(s) will be asked to transfer copyright of the article to the Publisher. This transfer will ensure the widest possible dissemination of information.

Special regulations for readers in the USA—This journal has been registered with the Copyright Clearance Center, Inc. Consent is given for copying of articles for personal or internal use, or for the personal use of specific clients. This consent is given on the condition that the copier pays through the Center the per-copy fee stated in the code on the first page of each article for copying beyond that permitted by Sections 107 or 108 of the US Copyright Law. The appropriate fee should be forwarded with a copy of the first page of the article to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA. If no code appears in an article, the author has not given broad consent to copy and permission to copy must be obtained directly from the author. The fee indicated on the first page of an article in this issue will apply retroactively to all articles published in the journal, regardless of the year of publication. This consent does not extend to other kinds of copying such as for general distribution, resale, advertising and promotion purposes, or for creating new collective works. Special written permission must be obtained from the Publisher for such copying.

0012-365X/98/\$19.00

No responsibility is assumed by the Publisher for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein.

Although all advertising material is expected to conform to ethical standards, inclusion in this publication does not constitute a guarantee or endorsement of the quality or value of such product or of the claims made of it by its manufacturer.

© The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper)

Printed in the Netherlands.

Editor-in-Chief

Peter L. Hammer, *RUTCOR, Rutgers, the State University of New Jersey, 640 Bartholomew Road, Piscataway, NJ 08854-8003, USA*

Advisory Editors

C. Berge, *E.R. Combinatoire, Centre de Mathématique Sociale, 54 Boulevard Raspail, 75270 Paris Cedex 06, France*

A.J. Hoffman, *Mathematical Sciences Department, IBM Thomas Watson Research Center, P.O. Box 218, Yorktown Heights, NY 10598, USA*

V.L. Klee, *Department of Mathematics, University of Washington, Seattle, WA 98195, USA*

R.C. Mullin, *Department of Combinatorics & Optimization, University of Waterloo, Waterloo, Ont., Canada N2L 3G1*

G.-C. Rota, *1105 Massachusetts Ave., Apr 8G, Cambridge, MA 02138-5216, USA*

V.T. Sós, *Mathematical Institute, Elke TTK Analisís 1, Múzeum Krt. 6-8, H-Budapest 8, Hungary*

J.H. van Lint, *Technische Universiteit, Insulindelaan 2, 5612 AZ Eindhoven, Netherlands*

Board of Editors

M.S. Aigner, *FB Mathematik, WE2, Freie Universität Berlin, Arnimallee 3, 14195 Berlin 33, Germany*

B. Alspach, *Department of Mathematics & Statistics, Simon Fraser University, Burnaby, B.C., Canada V5A 1S6*

G.E. Andrews, *Department of Mathematics & Statistics, Pennsylvania State University, University Park, PA 16802, USA*

A. Barlotti, *Istituto Matematico "Ulisse Dini", Viale Morgagni 67/A, I-50134 Firenze, Italy*

C. Benzaken, *Institute of Advanced Mathematics, Scientific and Medical, University of Grenoble, BP 53X, 38041 Grenoble Cedex, France*

J.-C. Bermond, *Informatique, CNRS, URA 1376, 3 rue Einstein, Sophia-Antipolis, 06560 Valbonne, France*

N.L. Biggs, *Department of Mathematics, London School of Economics, Houghton Street, London WC2A 2AE, UK*

B. Bollobás, *Department of Mathematical Sciences, University of Memphis, Campus Box 526429, Memphis, TN 38152-6429, USA*

R.A. Brualdi, *Department of Mathematics, University of Wisconsin-Madison, 480 Lincoln Drive, Madison, WI 53706, USA*

T.H. Brylawski, *Department of Mathematics, University of North Carolina, Chapel Hill, NC 27514, USA*

P.J. Cameron, *School of Mathematical Sciences, Queen Mary College, University of London, Mile End Road, London E1 4NS, UK*

P. Camion, *INRIA, Domaine de Voluceau-Rocquencourt, BP 105, Le Chesnay Cedex 78153, France*

G. Chartrand, *Department of Mathematics, Western Michigan University, Kalamazoo, MI 49008, USA*

- V. Chvátal, *Department of Computer Science, Rutgers, the State University of New Jersey, Hill Center, Piscataway, NJ 08855, USA*
- D. Foata, *Département Mathématique, Université Louis Pasteur, 7 rue René Descartes, F-67084 Strasbourg, France*
- A.S. Fraenkel, *Department of Applied Mathematics, Weizmann Institute of Science, IL-76100 Rehovot, Israel*
- P. Frankl, *Shibuya-Ku, Higashi 1-10-30301, Tokyo 150, Japan*
- A.M. Frieze, *Department of Mathematics, Carnegie Mellon University, Pittsburgh, PA 15213, USA*
- I.M. Gessel, *Department of Mathematics, Brandeis University, P.O. Box 9110, Waltham, MA 02254-9110, USA*
- R.L. Graham, *AT&T Bell Laboratories, 180 Park Avenue, Bldg. 103, Florham Park, NJ 07932, USA*
- A. Hajnal, *Mathematical Institute, Hungarian Academy of Science, Reáltanoda u. 13-15, H-1053 Budapest, Hungary*
- F. Harary, *Department of Computer Science, New Mexico State University, Las Cruces, NM 88003, USA*
- D.M. Jackson, *Combinatorics & Optimization, University of Waterloo, Waterloo, Ont., Canada N2L 3G1*
- J. Kahn, *Department of Mathematics, Rutgers, the State University of New Jersey, Hill Center, Piscataway, NJ 08855, USA*
- G.O.H. Katona, *Matematik Kutató Intéz, Magyar Tudományos Akad, Reáltanoda u. 13-15, H-1053 Budapest, Hungary*
- D.J. Kleitman, *Department of Mathematics, Massachusetts Institute of Technology, Cambridge, MA 02139, USA*
- A.V. Kostochka, *Institute of Mathematics, Siberian Branch of the RAS, Universitetskii pr., 4, Novosibirsk-90, 630090 Russia*
- L. Lovász, *Department of Computer Science, Yale University, New Haven, CT 06520, USA*
- I. Rival, *Department of Computer Science, University of Ottawa, Ottawa, Ont., Canada K1N 6N5*
- A. Rosa, *Department of Mathematics, McMaster University, Hamilton, Ont., Canada L8S 4K1*
- S. Rudeanu, *Institute de Matematica, University of Bucharest, Str. Academiei 14, 70109 Bucuresti, Romania*
- H. Sachs, *TH/Sekt. Mathematik, Rechentechnik und Kybernetik, Postfach 327, 98693 Ilmenau, Germany*
- J. Schonheim, *Department of Mathematics, Tel Aviv University, Ramat Aviv, IL-Tel Aviv, Israel*
- N.J.A. Sloane, *AT&T Research Labs., Room C233, P.O. Box 971, 180 Park Ave, Florham Park, NJ 07932-0971, USA*
- C. Thomassen, *Mathematical Institute, Technical University of Denmark, Building 303, DK-2800 Lyngby, Denmark*
- W.T. Tutte, *151 Manderston Road, Newmarket, Suffolk CB8 0NS, UK*
- D.J.A. Welsh, *Mathematical Institute, University of Oxford, 24-29 St. Giles, Oxford OX1 3LB, UK*

R. Wille, *Fachbereich Mathematik, Technische Hochschule Darmstadt, Schlossgarten-
strasse 7, 64289 Darmstadt, Germany*

D.R. Woodall, *Department of Mathematics, University of Nottingham, University Park,
Nottingham NG7 2RD, UK*

H.P. Yap, *Department of Mathematics, National University of Singapore, Singapore
0511, Singapore*



List of referees: volumes 171–180

DISCRETE MATHEMATICS has continuously benefitted from the kind assistance of a great number of referees. We hereby express our gratitude for their sustained efforts, without which our activity could not have been carried out.

the editors

K.A.S. Abdel-Ghaffar	M. Biliotti	C.J. Colbourn
D.M. Acketa	J.C. Bioch	K.L. Collins
R.K. Ahuja	A. Bjorner	D.G. Corneil
M. Aigner	A. Blass	P. Corsini
A. Ainouche	A. Blokhuis	L.J. Cowen
M.O. Albertson	H.L. Bodlaender	Y. Crama
N. Alon	K.P. Bogart	H. Crapo
B. Alspach	B. Bollobás	J.D. Currie
G.E. Andrews	O.V. Borodin	T.W. Cusick
M.H.G. Anthony	E. Boros	D. Cvetkovic
K.T. Arasu	A. Brandstadt	F. De Clerck
D. Archdeacon	P.S. Bremser	H. de Fraysseix
E.M. Arkin	R.C. Brigham	M.J. de Resmini
C.A. Athanasiadis	G.R. Brightwell	A. Del Fra
L. Bader	A. Brini	A. Delandtsheer
M.C. Balbuena	H.J. Broersma	P. Delsarte
J. Bang-Jensen	A.E. Brouwer	A. Denise
S.P. Banks	R.A. Brualdi	U. Derigs
I. Barany	F. Buekenhout	J. Desarmenien
A.E. Barkauskas	R.E. Burkard	W. Deuber
A. Barlotti	I. Cahit	G. Ding
J.P. Barthelemy	L. Cai	Ding Ren
C. Bartolone	Cai Mao-cheng	H. Dobbartin
L.M. Batten	L.R.A. Casse	D. Dorninger
J. Beck	P.V. Ceccherini	F.F. Dragan
L.W. Beineke	Chang Gerard J.	A.W.M. Dress
E.A. Bender	Chen Ciping	K. Drudge
F.E. Bennett	Chen Jianer	B. Du
W. Benz	J. Cheriyan	D.Z. Du
C. Benzaken	G.L. Cherlin	D. Duffus
C. Berge	W. Cherowitzo	A.J.W. Duijvestijn
K.A. Berman	G.A. Cheston	G.L. Ebert
J.-C. Bermond	A.G. Chetwynd	Y. Egawa
J. Berstel	C.J. Cho	S. Eliahou
A. Beutelspacher	C. Choffrut	M.N. Ellingham
S. Bezroukov	R. Ciampi Procesi	K. Engel
A. Bichara	R. Cignoli	H. Enomoto
T. Biedl	J.H.E. Cohn	R.C. Entringer

- | | | |
|---------------------|------------------|---------------------|
| F. Eugeni | F. Harary | I. Krasikov |
| R. Euler | T. Harju | D. Kratsch |
| A.V. Evako | J. Haviland | G. Kreweras |
| U. Faigle | H. Havlicek | M. Krivelevich |
| G. Faina | T.W. Haynes | D. Krob |
| S. Fajtlowicz | R.B. Hayward | G.J. Lallement |
| O. Favaron | K. Heinrich | C.W.H. Lam |
| U. Feige | W. Heise | P. Langevin |
| A. Feigelson | P. Hell | L.J. Langley |
| M.R. Fellows | L. Hellerstein | J.F. Lawrence |
| G. Ferrero | T. Helleseth | A. Lawrenz |
| B. Fichet | M. Henk | J. Lehel |
| S. Fiorini | M.A. Henning | P. Leroux |
| J.C. Fisher | A. Hertz | L.M. Lesniak |
| C. Flotow | P. Higgins | Li Rao |
| D. Foata | R. Hill | P. Liardet |
| D.G. Fon-Der-Flaass | W. Hochstaettler | Lih Ko-wei |
| J.A. Foster | C. Hoede | C. Lindner |
| A.S. Fraenkel | D.A. Holton | V. Linek |
| G.A. Freiman | T. Honold | S.L.S. Lins |
| A.M. Frieze | A.B. Huseby | V.A. Liskovets |
| M. Funk | T. Ibaraki | Liu Guizhen |
| H. Furstenberg | G. Isaak | Liu Jiuqiang |
| H. Galeana-Sanchez | A. Itai | Liu Yanpei |
| F. Galvin | M.S. Jacobson | S.C. Locke |
| B. Ganter | J.C.M. Janssen | M. Loeb |
| T. Gao | J. Jedwab | Z. Long |
| F. Gavril | S. Jendrol | L. Lovasz |
| I. Gessel | D. Jennings | M. Lovrecic Sarazin |
| E. Girlich | T.R. Jensen | G. Lunardon |
| W. Goddard | V. Jha | F. Maffray |
| C.D. Godsil | N.L. Johnson | N.V.R. Mahadev |
| M.C. Golumbic | L.K. Jorgensen | M. Maheo |
| R.J. Gould | M. Jungerman | E.S. Mahmoodian |
| R.L. Graham | D. Jungnickel | A. Mandel |
| G. Gratzner | J. Kahn | M. Marchi |
| J.R. Griggs | T. Kameda | O. Marcotte |
| J.L. Gross | L. Kandiller | N. Martin |
| L.K. Grover | M. Kano | H. Martini |
| B. Grunbaum | H. Karzel | D. Marusic |
| A.J. Guelzow | P.M. Kayll | R. Mathon |
| D.R. Guichard | A.D. Keedwell | M. Matsumoto |
| B. Guiduli | A.K. Kelmans | S.B. Maurer |
| Y. Guo | A. Kerber | W. McCuaig |
| V.A. Gurvich | A.E. Kezdy | C. McDiarmid |
| G.Z. Gutin | J. Kilian | T.A. McKee |
| A.J. Guttmann | Kim Jeong Han | F.R. McMorris |
| A. Gyarfás | V. Klee | P. McMullen |
| W.H. Haemers | M.H. Klin | L.S. Melnikov |
| G. Hahn | D. Kobler | N. Melone |
| A. Hajnal | K.M. Koh | G. Menichetti |
| S.L. Hakimi | G. Korchmaros | K. Metsch |
| H. Halberstam | R.R. Korfhage | W.H. Mills |
| Y.O. Hamidoune | A.V. Kostochka | M. Minoux |
| F.B. Hanson | S. Kounias | D. Moews |

- | | | |
|-----------------------|-------------------|-------------------|
| B. Monjardet | B.A. Reed | W.F. Smyth |
| A. Montpetit | K.B. Reid | H.S. Snevily |
| S.B. Morris | T.J. Reid | M. Sohoni |
| H. Mueller | B. Richmond | P. Sole |
| H.M. Mulder | R.B. Richter | V. Soltan |
| X. Munoz | J. Richter-Gebert | S. Spartalis |
| M.E. Muzychuk | G. Ringel | J. Spinrad |
| C.M. Mynhardt | A. Robert | A.P. Sprague |
| D. Naor | M.S. Roddy | S. Stahl |
| C.St.J. Nash-Williams | C.A. Rodger | W.L. Steiger |
| L. Nebesky | Y. Roditty | F. Stenger |
| S. Negami | O.J. Rodseth | K. Strambach |
| J. Nešetřil | A. Rosa | V. Strehl |
| J.-L. Nicolas | L.A. Rosati | R.A. Sulanke |
| T. Niessen | M. Rosenfeld | D.P. Sumner |
| K. Nomura | G.-C. Rota | X. Sun |
| L. Novak | O.S. Rothaus | Z.-W. Sun |
| R. Nowakowski | S. Rudeanu | T. Szalay |
| L. O'Connor | I.Z. Ruzsa | L.A. Szekely |
| J. O'Rourke | Z. Ryjacek | T. Szonyi |
| O.R. Oellermann | R. Saad | C. Tardif |
| D. Olanda | H. Sachs | S.E. Tavares |
| S. Olariu | A. Saito | P. Terwilliger |
| O. Ordaz | M. Saks | J.A. Thas |
| P.P. Orlik | A. Salomaa | J.Y. Thibon |
| J.G. Oxley | A. Sanchez-Arroyo | G. Thierrin |
| L. Pachter | B. Sands | R. Thomas |
| P.P. Palfy | M.V. Sapir | C. Thomassen |
| O. Patashnik | N.W. Sauer | M.J. Thomsen |
| S. Patkar | R. Scapellato | S. Todorovic |
| G. Paun | A.A. Schaffer | D.T. Todorov |
| S.E. Payne | R.H. Schelp | V.D. Tonchev |
| I. Peer | I. Schiermeyer | G. Toth |
| U.N. Peled | E. Schmeichel | A.N. Trenk |
| J.G. Penaud | J.H. Schmerl | V.I. Trofimov |
| K.T. Phelps | B. Schmidt | M. Tsuchiya |
| M.J. Plantholt | M. Schultz | A. Tucker |
| V.S. Pless | P.C. Schuur | W.T. Tutte |
| A. Pluhar | C.M. Scoppola | H. Tverberg |
| M.D. Plummer | B. Servatius | D. Ullman |
| K.S. Poh | B.L. Shader | U. Vaccaro |
| N. Polat | N.A. Shalaby | J. van den Heuvel |
| A. Poli | R. Shamir | G.H.J. van Rees |
| B. Poonen | M. Sharir | H.J. Veldman |
| R. Poschel | J. Sheehan | P.D. Vestergaard |
| M. Preissmann | Shen Minggang | L. Volkmann |
| E. Prisner | Y. Shi | T. Vougiouklis |
| H. Prodinger | I.E. Shparlinski | K. Walker |
| J.S. Provan | G. Simonyi | W.D. Wallis |
| P. Quattrocchi | C.C. Sims | T. Walsh |
| J. Radhakrishnan | J. Siran | Wang Hong |
| C. Rasmussen | S.S. Skiena | Wang Weifan |
| D. Rawlings | M. Skoviera | J.J. Watkins |
| R.C. Read | N.J.A. Sloane | M.E. Watkins |
| A. Reeski | D.H. Smith | H. Wefelscheid |

D.J.A. Welsh
D.B. West
J. West
A.T. White
D.E. White
M. Wild
J. Wimp
D.R. Woodall

N.C. Wormald
Wu Haidong
N.H. Xuong
M. Yannakakis
H.P. Yap
A. Yeo
N. Zagaglia Salvi
J. Zaks

C. Zanella
T. Zaslavsky
D. Zeilberger
Zhang Cun-Quan
Zhou Huishan
G.M. Ziegler
J.S. Zito

Master index of volumes 171–180

Abramov, S.A., P. Paule and M. Petkovšek, q -Hypergeometric solutions of q -difference equations	180	(1998)	3– 22
Achlioptas, D., J.I. Brown, D.G. Corneil and M.S.O. Molloy, The existence of uniquely G colourable graphs	179	(1998)	1– 11
Aharoni, R., G.T. Herman and A. Kuba, Binary vectors partially determined by linear equation systems	171	(1997)	1– 16
Ainouche, A., Quasi-claw-free graphs	179	(1998)	13– 26
Ajoodani-Namini, S., All block designs with $b = \binom{v}{k}/2$ exist	179	(1998)	27– 35
Albertson, M.O. and R. Haas, The edge chromatic difference sequence of a cubic graph	177	(1997)	1– 8
Alekseyevskaya, T.V. and I.M. Gelfand, Incidence matrices, geometrical bases, combinatorial prebases and matroids	180	(1998)	23– 44
Alon, N., Packings with large minimum kissing numbers (Note)	175	(1997)	249–251
Alpin, J. and R. Mubarakzianow, The bases of weighted graphs	175	(1997)	1– 11
Anstee, R.P. and A. Sali, Sperner families of bounded VC-dimension	175	(1997)	13– 21
Anstee, R.P. and L. Caccetta, Orthogonal matchings	179	(1998)	37– 47
Apartsin, A., E. Ferapontova and V. Gurvich, A circular graph — counterexample to the Duchet kernel conjecture (Note)	178	(1998)	229–231
Armanious, M.H., Construction of nilpotent sloops of class n	171	(1997)	17– 25
Aslam, M., see Q. Mushtaq	179	(1998)	145–154
Bacsó, G., On a conjecture about uniquely colorable perfect graphs	176	(1997)	1– 19
Balbuena, M.C., A. Carmona, J. Fàbrega and M.A. Fiol, Connectivity of large bipartite digraphs and graphs	174	(1997)	3– 17
Balbuena, M.C., A. Carmona, J. Fàbrega and M.A. Fiol, On the order and size of s -geodetic digraphs with given connectivity	174	(1997)	19– 27

Bálint, V., Two packing problems (<i>Note</i>)	178	(1998)	233-236
Ball, S., On small complete arcs in a finite plane	174	(1997)	29- 34
Bange, D.W., A.E. Barkauskas, L.H. Host and L.H. Clark, Efficient domination of the orientations of a graph	178	(1998)	1- 14
Banković, D., Horn sentences in Post algebras (<i>Note</i>)	173	(1997)	269-275
Bao, X., see C. Ye	172	(1997)	155-162
Bao, X.-W., see N.-Z. Li	172	(1997)	79- 84
Barucci, E., A.D. Lungo, E. Pergola and R. Pinzani, A methodology for plane tree enumeration	180	(1998)	45- 64
Barg, A., A large family of sequences with low periodic correlation	176	(1997)	21- 27
Barkauskas, A.E., see D.W. Bange	178	(1998)	1- 14
Bencheikroun, S. and P. Moszkowski, A bijective proof of an enumerative property of legal bracketings (<i>Note</i>)	176	(1997)	273-277
Berardi, L., On blocking sets in a design (<i>Note</i>)	177	(1997)	249-257
Berardi, L., M. Buratti and S. Innamorati, 4-Blocked Hadamard 3-designs	174	(1997)	35- 46
Berenbom, J., J. Fendel, G.T. Gilbert and R.L. Hatcher, Sliding piece puzzles with oriented tiles	175	(1997)	23- 33
Berman, D.M., A.J. Radcliffe, A.D. Scott, H. Wang and L. Wargo, All trees contain a large induced subgraph having all degrees 1 (mod k)	175	(1997)	35- 40
Berman, J. and G. Bordalo, Finite distributive lattices and doubly irreducible elements (<i>Note</i>)	178	(1998)	237-243
Bhargava, M., Congruence preservation and polynomial functions from \mathbb{Z}_n to \mathbb{Z}_m	173	(1997)	15- 21
Biane, P., Some properties of crossings and partitions	175	(1997)	41- 53
Bier, T. and A. Kleinschmidt, Centrally symmetric and magic rectangles	176	(1997)	29- 42
Billington, E.J. and D.G. Hoffman, The intersection problem for star designs (<i>Note</i>)	179	(1998)	217-222
Biondi, P., A classification of finite $\{n-2, n-1\}$ -point- biregular spaces	174	(1997)	47- 71
Boesch, F., see L. Petingi	179	(1998)	155-166
Bollobás, B. and O. Riordan, On some conjectures of Graffiti (<i>Note</i>)	179	(1998)	223-230
Bollobás, B., N. Hegyvári and G. Jin, On a problem of Erdős and Graham (<i>Note</i>)	175	(1997)	253-257
Bóna, M., Permutations avoiding certain patterns: The case of length 4 and some generalizations	175	(1997)	55- 67
Bordalo, G., see J. Berman	178	(1998)	237-243
Borobia, A. and V. Chumillas, *-graphs of vertices of the generalized transitive tournament polytope	179	(1998)	49- 57

- Boros, E and V. Gurvich, A corrected version of the Duchet kernel conjecture (*Note*) 179 (1998) 231–233
- Borovik, A.V., I. Gelfand and N. White, On exchange properties for Coxeter matroids and oriented matroids 179 (1998) 59– 72
- Boswell, S.G. and J. Simpson, Edge-disjoint maximal planar graphs (*Note*) 179 (1998) 235–241
- Bottreau, A., A.D. Bucchianico and D.E. Loeb, Computer algebra and Umbral Calculus 180 (1998) 65– 72
- Bousquet-Mélou, M., New enumerative results on two-dimensional directed animals 180 (1998) 73–106
- Bouwkamp, C.J., On step-2 transforms for simple perfect squared squares (*Note*) 179 (1998) 243–252
- Brandstädt, A., V.B. Le and T. Szymczak, Duchet-type theorems for powers of HHD-free graphs 177 (1997) 9– 16
- Brandstädt, A., F. F. Dragan and F. Nicolai, LexBFS-orderings and powers of chordal graphs 171 (1997) 27– 42
- Broersma, H., H. Li, J. Li, F. Tian and H.J. Veldman, Cycles through subsets with large degree sums 171 (1997) 43– 54
- Brown, J.I., see D. Achlioptas 179 (1998) 1– 11
- Brunat, J.M., M.A. Fiol and M.L. Fiol, Digraphs on permutations 174 (1997) 73– 86
- Bryant, D.E., A. Rodger and E.R. Spicer, Embeddings of m -cycle systems and incomplete m -cycle systems: $m \leq 14$ 171 (1997) 55– 75
- Bucchianico, A.D., see A. Bottreau 180 (1998) 65– 72
- Buratti, M., see L. Berardi 174 (1997) 35– 46
- Burkard, R.E., see Q.F. Yang 176 (1997) 233–254
- Caccetta, L., see R.P. Anstee 179 (1998) 37– 47
- Campbell, C.M., On cages for girth pair $(6, b)$ (*Note*) 177 (1997) 259–266
- Carmona, A., see M.C. Balbuena 174 (1997) 3– 17
- Carmona, A., see M.C. Balbuena 174 (1997) 19– 27
- Çela, E., see Q.F. Yang 176 (1997) 233–254
- Čepulić, V., The unique symmetric block design $(61, 16, 4)$ admitting an automorphism of order 15 operating standardly (*Note*) 175 (1997) 259–263
- Chan, W.H., see P.C.B. Lam 173 (1997) 285–289
- Chao, C.-Y., A critically chromatic graph 172 (1997) 3– 7
- Chao, C.-Y., Z.-Y. Guo and N.-Z. Li, On q -graphs 172 (1997) 9– 16
- Chao, J.M. and H. Kaneta, Classical arcs in $\text{PG}(r, q)$ for $11 \leq q \leq 19$ 174 (1997) 87– 94
- Chen, W. and T. Kløve, Disjoint sets of distinct sum sets 175 (1997) 69– 77
- Chen, X.E. and K.Z. Ouyang, Chromatic classes of certain 2-connected $(n, n+2)$ -graphs homeomorphic to K_4 172 (1997) 17– 29

- Chen, X.E. and K.Z. Ouyang, Chromatic classes of certain 2-connected $(n, n + 2)$ -graphs II 172 (1997) 31- 38
- Chen, Z.-H., Supereulerian graphs, independent sets, and degree-sum conditions 179 (1998) 73- 87
- Chetwynd, A.G. and S.J. Rhodes, Avoiding partial Latin squares and intricacy 177 (1997) 17- 32
- Chew, K.H., On Vizing's theorem, Adjacency lemma and fan argument generalized to multigraphs (*Note*) 171 (1997) 283-286
- Chia, G.L., A bibliography on chromatic polynomials (*Appendix*) 172 (1997) 175-191
- Chia, G.L., On the chromatic equivalence class of graphs 178 (1998) 15- 23
- Chia, G.L., Some problems on chromatic polynomials 172 (1997) 39- 44
- Chiang, N.-P. and H.-L. Fu, On upper bounds for the pseudo-achromatic index 175 (1997) 79- 86
- Chu, W., Distributivity and decomposability on the lattices satisfying the chain conditions 174 (1997) 95- 97
- Chuan, W.-F., α -Words and factors of characteristic sequences 177 (1997) 33- 50
- Chumillas, V., see A. Borobia 179 (1998) 49- 57
- Clark, L.H. and D. Haile, Remarks on the size of critical edge-chromatic graphs (*Note*) 171 (1997) 287-293
- Clark, L.H., see D.W. Bange 178 (1998) 1- 14
- Cockayne, E.J., J.H. Hattingh, S.M. Hedetniemi, S.T. Hedetniemi and A.A. McRae, Using maximality and minimality conditions to construct inequality chains 176 (1997) 43- 61
- Cohn, K.J., Cyclomatic numbers of planar graphs (*Note*) 178 (1998) 245-250
- Cole, T., Non-crossing of plane minimal spanning and minimal $T1$ networks 177 (1997) 51- 65
- Corneil, D.G., see D. Achlioptas 179 (1998) 1- 11
- Corsani, C., D. Merlini and R. Sprugnoli, Left-inversion of combinatorial sums 180 (1998) 107-122
- Craft, D.L., On the genus of joins and compositions of graphs 178 (1998) 25- 50
- Darrah, M., Y.-P. Liu and C.-Q. Zhang, Cycles of all lengths in arc-3-cyclic semicomplete digraphs 173 (1997) 23- 33
- da Silva, I.P.F., Note on inseparability graphs of matroids having exactly one class of orientations 171 (1997) 77- 87
- de la Torre, P. and D.T. Kao, An algebraic approach to the prefix model analysis of binary trie structures and set intersection algorithms 180 (1998) 123-142
- Del Fra, A., On two new classes of semibiplanes 174 (1997) 107-116

Del Fra, A. and G. Pica, Flag-transitive C_2 . L_n geometries	174	(1997)	99–105
Deutsch, E., A bijection on Dyck paths and its consequences (Note)	179	(1998)	253–256
Ding, K., Rook placements and generalized partition varieties	176	(1997)	63– 95
Doignon, J.-P. and J.-C. Falmagne, Well-graded families of relations	173	(1997)	35– 44
Dong, F.M and K.M. Koh, On the structure and chromatic- ity of graphs in which any two colour classes induce a tree	176	(1997)	97–113
Dragan, F.F., see A. Brandstädt	171	(1997)	27– 42
Du, D.-Z., see P.-J. Wan	171	(1997)	261–275
Dulucq, S. and O. Guibert, Baxter permutations	180	(1998)	143–156
Durand, F., A characterization of substitutive sequences using return words	179	(1998)	89–101
Dvořák, T., I. Havel and P. Liebl, Euler cycles in the com- plete graph K_{2m+1}	171	(1997)	89–102
Egawa, Y., Contractible cycles in graphs with large min- imum degree	171	(1997)	103–119
Endo, T., Thepagenumber of toroidal graphs is at most seven	175	(1997)	87– 96
Era, H. and M. Tsuchiya, On upper bound graphs whose complements are also upper bound graphs	179	(1998)	103–109
Erdős, P., A. Gyárfás and Y. Kohayakawa, The size of the largest bipartite subgraphs (Note)	177	(1997)	267–271
Erdős, P. and P. Fishburn, Distinct distances in finite planar sets	175	(1997)	97–132
Etienne, G. and M.L. Vergnas, External and internal ele- ments of a matroid basis	179	(1998)	111–119
Ettinger, J.M., Finitely presented partially ordered abelian groups	175	(1997)	133–141
Fàbrega, J., see M.C. Balbuena	174	(1997)	3– 17
Fàbrega, J., see M.C. Balbuena	174	(1997)	19– 27
Faina, G. and F. Pambianco, Small complete caps in $PG(r, q)$, $r \geq 3$	174	(1997)	117–123
Falmagne, J.-C., see J.-P. Doignon	173	(1997)	35– 44
Faudree, R.J. and R.J. Gould, Characterizing forbidden pairs for hamiltonian properties	173	(1997)	45– 60
Favaron, O. and J. Puech, Irredundance in grids (Note)	179	(1998)	257–265
Feinsilver, P. and R. Schott, Formal power series, operator calculus, and duality on Lie algebras	180	(1998)	157–171

Fendel, J., see J. Berenbom	175	(1997)	23- 33
Ferapontova, E., see A. Apartsin	178	(1998)	229-231
Feretić, S., A new way of counting the column-convex polyominoes by perimeter	180	(1998)	173-184
Fiol, M.A., see J.M. Brunat	174	(1997)	73- 86
Fiol, M.A., see M.C. Balbuena	174	(1997)	3- 17
Fiol, M.A., see M.C. Balbuena	174	(1997)	19- 27
Fiol, M.L., see J.M. Brunat	174	(1997)	73- 86
Fiorini, S., see I. Sciriha	174	(1997)	293-308
Fishburn, P., see P. Erdős	175	(1997)	97-132
Flandre, O., Four results about self-blocking clutters	178	(1998)	51- 62
Fon-Der-Flaass, D.G., Arrays of distinct representatives — a very simple NP-complete problem (<i>Note</i>)	171	(1997)	295-298
Fu, H.-L., see N.-P. Chiang	175	(1997)	79- 86
Fu, H.L., C.C. Lindner and C.A. Rodger, Two Doyen-Wilson theorems for maximum packings with triples	178	(1998)	63- 71
Fulmek, M., Dual rook polynomials	177	(1997)	67- 81
Galeana-Sánchez, H. and X. Li, Kernels in a special class of digraphs	178	(1998)	73- 80
Gardner, R., B. Micale, M. Pennisi and R. Zijlstra, Cyclic and rotational hybrid triple systems	171	(1997)	121-139
Gardner, R., B. Micale, M. Pennisi and R. Zijlstra, Cyclic and rotational hybrid triple systems	175	(1997)	143-161
Gasparian, G., see S. Markossian	178	(1998)	137-153
Gasse, E., A proof of a circle graph characterization (<i>Note</i>)	173	(1997)	277-283
Geldenhuis, G., see W.F.D. Theron	178	(1998)	213-220
Gelfand, I., see A.V. Borovik	179	(1998)	59- 72
Gelfand, I.M., see T.V. Alekseyevskaya	180	(1998)	23- 44
Giakoumakis, V., On the closure of graphs under substitution	177	(1997)	83- 97
Gilbert, G.T., see J. Berenbom	175	(1997)	23- 33
Gionfriddo, M., F. Harary and Z. Tuza, The color cost of a caterpillar	174	(1997)	125-130
Gould, R.J., see R.J. Faudree	173	(1997)	45- 60
Gourdon, X., Largest component in random combinatorial structures	180	(1998)	185-209
Graham, R.L., see P.-J. Wan	171	(1997)	261-275
Greferath, M., Cyclic codes over finite rings (<i>Note</i>)	177	(1997)	273-277
Griggs, T.S. and B.J. Wilson, Distance-regular graphs, MH-colourings and MLD-colourings	174	(1997)	131-135
Gropp, H., Configurations and their realization	174	(1997)	137-151
Guibert, O., see S. Dulucq	180	(1998)	143-156

Guo, Z.-Y. and E.G. Whitehead Jr., Chromaticity of a family of K_4 homeomorphs	172	(1997)	53– 58
Guo, Z.-Y., On T-chromatic uniqueness of graphs	172	(1997)	45– 51
Guo, Z.-Y., see C.-Y. Chao	172	(1997)	9– 16
Gurgel, M.A.C.M. and Y. Wakabayashi, Adjacency of vertices of the complete pre-order polytope	175	(1997)	163–172
Gurvich, V., see A. Apartsin	178	(1998)	229–231
Gurvich, V., see E. Boros	179	(1998)	231–233
Gvozdjak, P., On the Oberwolfach problem for complete multigraphs	173	(1997)	61– 69
Gyárfás, A., Z. Király and J. Lehel, On-line 3-chromatic graphs — II: Critical graphs	177	(1997)	99–122
Gyárfás, A., see P. Erdős	177	(1997)	267–271
Haas, R., see M.O. Albertson	177	(1997)	1– 8
Habsieger, L., Binary codes with covering radius one: Some new lower bounds	176	(1997)	115–130
Haile, D., see L.H. Clark	171	(1997)	287–293
Hansen, P., F. Zhang and M. Zheng, Perfect matchings and ears in elementary bipartite graphs	176	(1997)	131–138
Harary, F., see M. Gionfriddo	174	(1997)	125–130
Hatcher, R.L., see J. Berenbom	175	(1997)	23– 33
Hattingh, J.H. and E. Ungerer, Minus k -subdomination in graphs II	171	(1997)	141–151
Hattingh, J.H., see E.J. Cockayne	176	(1997)	43– 61
Havel, I., see T. Dvořák	171	(1997)	89–102
Havlicek, H., Affine circle geometry over quaternion skew fields	174	(1997)	153–165
Hedetniemi, S.M., see E.J. Cockayne	176	(1997)	43– 61
Hedetniemi, S.T., see E.J. Cockayne	176	(1997)	43– 61
Hegyhári, N., see B. Bollobás	175	(1997)	253–257
Heim, U., Proper blocking sets in projective spaces	174	(1997)	167–176
Herman, G.T., see R. Aharoni	171	(1997)	1– 16
Hespe, C. and G. Jacob, First steps towards exact algebraic identification	180	(1998)	211–219
Higuchi, A., Lattices of closure operators (<i>Note</i>)	179	(1998)	267–272
Hirschfeld, J.W.P., Complete arcs	174	(1997)	177–184
Hoang Ngoc Minh, Fonctions de Dirichlet d'ordre n et de paramètre t	180	(1998)	221–241
Hoffman, D.G., see E.J. Billington	179	(1998)	217–222
Hornák, M. and R. Soták, Asymptotic behaviour of the observability of Q_n	176	(1997)	139–148
Host, L.H., see D.W. Bange	178	(1998)	1– 14

Hotje, H., A remark on the Beckman/Quarles theorem	174	(1997)	185-186
Huang, Q., see J. Meng	178	(1998)	267-269
Huang, Y. and Y. Liu, Maximum genus and maximum nonseparating independent set of a 3-regular graph	176	(1997)	149-158
Ille, P., Indecomposable graphs	173	(1997)	71- 78
Innamorati, S., see L. Berardi	174	(1997)	35- 46
Isaksen, D.C. and D.P. Moulton, Randomly planar graphs (Note)	175	(1997)	265-269
Jackson, B. and J. Sheehan, The structure of transform graphs	177	(1997)	123-144
Jacob, G., see C. Hespel	180	(1998)	211-219
Jacobson, M., G.M. Levin and E.R. Scheinerman, On fractional Ramsey numbers	176	(1997)	159-175
Jagger, C., Tournaments as strong subcontractions	176	(1997)	177-184
Jin, G., see B. Bollobás	175	(1997)	253-257
Jordán, T., On the existence of (k, l) -critical graphs (Note)	179	(1998)	273-275
Kaikkonen, M.K., see P.R.J. Östergård	178	(1998)	165-179
Kaneko, J., Constant term identities of Forrester-Zeilberger-Cooper	173	(1997)	79- 90
Kaneta, H., see J.M. Chao	174	(1997)	87- 94
Kao, D.T., see P. de la Torre	180	(1998)	123-142
Karapetian, I., see S. Markossian	178	(1998)	137-153
Karoński, M. and T. Łuczak, The number of connected sparsely edged uniform hypergraphs	171	(1997)	153-167
Katriel, J., Minimal set of class-sums characterizing the ordinary irreducible representations of the symmetric group, and the Tarry-Escott problem	173	(1997)	91- 95
Kelmans, A.K., Optimal packing of induced stars in a graph	173	(1997)	97-127
Kierstead, H.A. and J. Quintana, Square Hamiltonian cycles in graphs with maximal 4-cliques	178	(1998)	81- 92
Kingán, S.R., A generalization of a graph result of D.W. Hall	173	(1997)	129-135
Király, Z., see A. Gyárfás	177	(1997)	99-122
Klain, D.A., Kinematic formulas for finite vector spaces	179	(1998)	121-132
Kleinschmidt, A., see T. Bier	176	(1997)	29- 42
Kløve, T., On codes satisfying the double chain condition	175	(1997)	173-195
Kløve, T., see W. Chen	175	(1997)	69- 77
Koh, K.M. and B.P. Tan, The diameter of an orientation of a complete multipartite graph [Discrete Math. 149 (1996) 131-139] (Addendum)	173	(1997)	297-298

Koh, K.M. and K.L. Teo, The search for chromatically unique graphs — II	172	(1997)	59– 78
Koh, K.M., see F.M. Dong	176	(1997)	97–113
Kohayakawa, Y., see P. Erdős	177	(1997)	267–271
Korzhik, V.P., A possibly infinite series of surfaces with known 1-chromatic number	173	(1997)	137–149
Koseleff, P.-V., Relations among Lie-series transformations and isomorphisms between free Lie algebras	180	(1998)	243–254
Kratochvíl, J. and A. Kuběna, On intersection representations of co-planar graphs (<i>Note</i>)	178	(1998)	251–255
Kuba, A., see R. Aharoni	171	(1997)	1– 16
Kuběna, A., see J. Kratochvíl	178	(1998)	251–255
Lai, H.-J., Eulerian subgraphs containing given vertices and hamiltonian line graphs	178	(1998)	93–107
Lam, P.C.B., W.C. Shiu, W.H. Chan and Y. Lin, On the bandwidth of convex triangulation meshes (<i>Note</i>)	173	(1997)	285–289
Le, V.B., see A. Brandstädt	177	(1997)	9– 16
Lehel, J., see A. Gyárfás	177	(1997)	99–122
Lenart, C. and N. Ray, Hopf algebras of set systems	180	(1998)	255–280
Levin, G.M., see M. Jacobson	176	(1997)	159–175
Li, B. and E.C. Milner, The ANTI-order and the fixed point property for cacc posets	175	(1997)	197–209
Li, B. and E.C. Milner, Isomorphic ANTI-cores of cacc posets	176	(1997)	185–195
Li, C.H., On isomorphisms of connected Cayley graphs	178	(1998)	109–122
Li, H., see H. Broersma	171	(1997)	43– 54
Li, J., see H. Broersma	171	(1997)	43– 54
Li, N.-Z., see C.-Y. Chao	172	(1997)	9– 16
Li, N.-Z., X.-W. Bao and R.-Y. Liu, Chromatic uniqueness of the complements of certain forests	172	(1997)	79– 84
Li, N.-Z., The list of chromatically unique graphs of order-seven and eight (<i>Appendix</i>)	172	(1997)	193–221
Li, P., Sequencing the dihedral groups D_{4k} (<i>Note</i>)	175	(1997)	271–276
Li, X., see H. Galeana-Sánchez	178	(1998)	73– 80
Liaw, Y.S., Construction of referee squares	178	(1998)	123–135
Liebl, P., see T. Dvořák	171	(1997)	89–102
Lin, X., M. Zhu, Z. Yu, C. Zhang and Y. Yang, On distinct distance sets in a graph (<i>Note</i>)	175	(1997)	277–282
Lin, Y., see P.C.B. Lam	173	(1997)	285–289
Lindner, C.C. and C.A. Rodger, On equationally defining extended cycle systems (<i>Perspectives</i>)	173	(1997)	1– 14
Lindner, C.C., see H.L. Fu	178	(1998)	63– 71

- | | | | |
|--|-----|--------|---------|
| Lins, S., Twistors: Bridges among 3-manifolds | 177 | (1997) | 145-165 |
| Little, C.H.C., see Y.-H. Peng | 172 | (1997) | 103-114 |
| Liu, R.-Y., Adjoint polynomials and chromatically unique graphs | 172 | (1997) | 85- 92 |
| Liu, R.-Y. and L.-C. Zhao, A new method for proving chromatic uniqueness of graphs | 171 | (1997) | 169-177 |
| Liu, R.-Y., see N.-Z. Li | 172 | (1997) | 79- 84 |
| Liu, Y., see Y. Huang | 176 | (1997) | 149-158 |
| Liu, Y.-P., see M. Darrah | 173 | (1997) | 23- 33 |
| Lo Faro, G., Constructing 3-chromatic Steiner triple systems | 174 | (1997) | 187-190 |
| Loeb, D.E., see A. Bottreau | 180 | (1998) | 65- 72 |
| Lu, Z., The exact value of the harmonious chromatic number of a complete binary tree | 172 | (1997) | 93-101 |
| Łuczak, T., see M. Karoński | 171 | (1997) | 153-167 |
| Lunardon, G. and P. Polito, On q -clans in even characteristic | 174 | (1997) | 191-198 |
| Lungo, A.D., see E. Barcucci | 180 | (1998) | 45- 64 |
| | | | |
| Maharaj, H., Edge frames of graphs: A graph embedding problem | 177 | (1997) | 167-184 |
| Markosian, A., see S. Markossian | 178 | (1998) | 137-153 |
| Markossian, S., G. Gasparian, I. Karapetian and A. Markosian, On essential components and critical sets of a graph | 178 | (1998) | 137-153 |
| Maruta, T., Cyclic arcs and pseudo-cyclic MDS codes | 174 | (1997) | 199-205 |
| Maxwell, M.M., On rational structures and their asymptotics (<i>Note</i>) | 178 | (1998) | 257-266 |
| McKee, T.A., Clique neighborhoods and nearly chordal graphs | 171 | (1997) | 179-189 |
| McRae, A.A., see E.J. Cockayne | 176 | (1997) | 43- 61 |
| Meixner, T. and A. Pasini, On flat extended grids | 174 | (1997) | 207-226 |
| Meng, J. and Q. Huang, Almost all Cayley graphs have diameter 2 (<i>Note</i>) | 178 | (1998) | 267-269 |
| Merlini, D., see C. Corsani | 180 | (1998) | 107-122 |
| Metsch, K., Embedding theorems for locally projective three-dimensional linear spaces | 174 | (1997) | 227-245 |
| Micale, B., see R. Gardner | 171 | (1997) | 121-139 |
| Micale, B., see R. Gardner | 175 | (1997) | 143-161 |
| Milazzo, L. and Z. Tuza, Upper chromatic number of Steiner triple and quadruple systems | 174 | (1997) | 247-259 |
| Milner, E.C., see B. Li | 175 | (1997) | 197-209 |
| Milner, E.C., see B. Li | 176 | (1997) | 185-195 |
| Minoux, M., Bideterminants, arborescences and extension of the Matrix-Tree Theorem to semirings | 171 | (1997) | 191-200 |

- Misfeld, J. and C. Zanella, The line geometry of a class of linear spaces 174 (1997) 261–269
- Mitchem, J. and P. Morris, On the cost-chromatic number of graphs 171 (1997) 201–211
- Mizuno, H. and I. Sato, Enumeration of finite field labels on graphs 176 (1997) 197–202
- Mohar, B., Apex graphs with embeddings of face-width three 176 (1997) 203–210
- Molev, A.I., Stirling partitions of the symmetric group and Laplace operators for the orthogonal Lie algebra 180 (1998) 281–300
- Molina, R., The centroidal branches of a separable graph are edge reconstructible 179 (1998) 133–143
- Molloy, M.S.O., see D. Achlioptas 179 (1998) 1–11
- Möller, R.G., Topological groups, automorphisms of infinite graphs and a theorem of Trofimov (*Note*) 178 (1998) 271–275
- Moran, J.F., The growth rate and balance of homogeneous tilings in the hyperbolic plane 173 (1997) 151–186
- Morris, P., see J. Mitchem 171 (1997) 201–211
- Moszkowski, P., see S. Benčekroun 176 (1997) 273–277
- Moulton, D.P., see D.C. Isaksen 175 (1997) 265–269
- Mubarakzianow, R., see J. Alpin 175 (1997) 1–11
- Mushtaq, Q. and M. Aslam, Group generated by two elements of orders two and six acting on \mathbb{R} and $\mathbb{Q}(\sqrt{n})$ 179 (1998) 145–154
- Mushtaq, Q., On word structure of the modular group over finite and real quadratic fields 178 (1998) 155–164
- Muzychuk, M., On Ádám's conjecture for circulant graphs (*Corrigendum*) 176 (1997) 285–298
- Nair, P.S., Construction of self-complementary graphs (*Note*) 175 (1997) 283–287
- Ng, L.L., Hamiltonian decomposition of complete regular multipartite digraphs (*Note*) 177 (1997) 279–285
- Nicolai, F., see A. Brandstädt 171 (1997) 27–42
- Nolan, J.M., C.D. Savage and H.S. Wilf, Basis partitions (*Note*) 179 (1998) 277–283
- Noy, M., Enumeration of noncrossing trees on a circle 180 (1998) 301–313
- Östergård, P.R.J. and M.K. Kaikkonen, New upper bounds for binary covering codes 178 (1998) 165–179
- Östergård, P.R.J., On the structure of optimal error-correcting codes (*Note*) 179 (1998) 285–287
- Ouyang, K.Z., see X.E. Chen 172 (1997) 17–29
- Ouyang, K.Z., see X.E. Chen 172 (1997) 31–38

- Oxley, J., On packing 3-connected restrictions into 3-connected matroids 178 (1998) 181-198
- Pacco, W. and R. Scapellato, Digraphs having the same canonical double covering (*Note*) 173 (1997) 291-296
- Pak, I. and A. Postnikov, A generalization of Sylvester's identity (*Note*) 178 (1998) 277-281
- Pambianco, F., see G. Faina 174 (1997) 117-123
- Pasini, A., see T. Meixner 174 (1997) 207-226
- Paule, P., see S.A. Abramov 180 (1998) 3-22
- Peng, Y.-H., C.H.C. Little, K.L. Teo and H. Wang, Chromatic equivalence classes of certain generalized polygon trees 172 (1997) 103-114
- Pennisi, M., see R. Gardner 171 (1997) 121-139
- Pennisi, M., see R. Gardner 175 (1997) 143-161
- Perelli Cippo, C., A geometric interpretation of an equality by Sylvester 174 (1997) 271-276
- Pergola, E., see E. Barucci 180 (1998) 45-64
- Petingi, L., F. Boesch and C. Suffel, On the characterization of graphs with maximum number of spanning trees 179 (1998) 155-166
- Petkovšek, M., see S.A. Abramov 180 (1998) 3-22
- Petrovic, V., Kings in bipartite tournaments 173 (1997) 187-196
- Petrovich, A., Equations in the theory of Q -distributive lattices 175 (1997) 211-219
- Pica, G., see A. Del Fra 174 (1997) 99-105
- Pinzani, R., see E. Barucci 180 (1998) 45-64
- Pirillo, G., Fibonacci numbers and words 173 (1997) 197-207
- Plantholt, M.J. and S.K. Tipnis, The chromatic index of multigraphs of order at most 10 177 (1997) 185-193
- Poirier, S., Cycle type and descent set in wreath products 180 (1998) 315-343
- Polito, P., see G. Lunardon 174 (1997) 191-198
- Postnikov, A., see I. Pak 178 (1998) 277-281
- Prince, A.R., Oval configurations of involutions in symmetric groups 174 (1997) 277-282
- Przytycka, T.M. and J.H. Przytycki, A simple construction of high representativity triangulations 173 (1997) 209-228
- Przytycki, J.H., see T.M. Przytycka 173 (1997) 209-228
- Puech, J., see O. Favaron 179 (1998) 257-265
- Quattrocchi, G., On arcs in path designs of block size four 174 (1997) 283-292
- Quintana, J., see H.A. Kierstead 178 (1998) 81-92
- Radcliffe, A.J., see D.M. Berman 175 (1997) 35-40

Raines, M.E. and C.A. Rodger, Embedding partial extended triple systems and totally symmetric quasigroups	176	(1997)	211-222
Ramirez-Alfonsín, J.L., The spread of K_n	175	(1997)	221-229
Randrianarivony, A., q, p -Analogue des nombres de Catalan	178	(1998)	199-211
Ray, N., see C. Linart	180	(1998)	255-280
Reiner, V., Non-crossing partitions for classical reflection groups	177	(1997)	195-222
Rhodes, S.J., see A.G. Chetwynd	177	(1997)	17- 32
Riordan, O., see B. Bollobás	179	(1998)	223-230
Rodger, C.A., see C.C. Lindner	173	(1997)	1- 14
Rodger, C.A., see D.E. Bryant,	171	(1997)	55- 75
Rodger, C.A., see H.L. Fu	178	(1998)	63- 71
Rodger, C.A., see M.E. Raines	176	(1997)	211-222
Rodriguez, J. and A. Satyanarayana, Chromatic polynomials with least coefficients	172	(1997)	115-119
Rusu, I., Building counterexamples	171	(1997)	213-227
Sakaloglu, A. and A. Satyanarayana, Planar graphs with least chromatic coefficients	172	(1997)	121-130
Sali, A., see R.P. Anstee	175	(1997)	13- 21
Santmyer, J.M., A Stirling like sequence of rational numbers	171	(1997)	229-235
Sato, I., see H. Mizuno	176	(1997)	197-202
Satyanarayana, A., see A. Sakaloglu	172	(1997)	121-130
Satyanarayana, A., see J. Rodriguez	172	(1997)	115-119
Savage, C.D., see J.M. Nolan	179	(1998)	277-283
Scapellato, R., see W. Pacco	173	(1997)	291-296
Scheinerman, E.R., see M. Jacobson	176	(1997)	159-175
Schmidt, B., Nonexistence of a (783, 69, 6)-difference set (Note)	178	(1998)	283-285
Schott, R., see P. Feinsilver	180	(1998)	157-171
Schröder, B.S.W., On CC-comparability invariance of the fixed point property	179	(1998)	167-183
Sciriha, I. and S. Fiorini, On the characteristic polynomial of homeomorphic images of a graph	174	(1997)	293-308
Scott, A.D., On graph decompositions modulo k (Note)	175	(1997)	289-291
Scott, A.D., Reconstructing sequences	175	(1997)	231-238
Scott, A.D., see D.M. Berman	175	(1997)	35- 40
Senato, D., A. Venezia and J. Yang, Möbius polynomial species	173	(1997)	229-256
Shapiro, B., M. Shapiro and A. Vainshtein, Kazhdan-Lusztig polynomials for certain varieties of incomplete flags	180	(1998)	345-355
Shapiro, M., see B. Shapiro	180	(1998)	345-355

Sheehan, J., see B. Jackson	177	(1997)	123-144
Shen, R. and F. Tian, Long dominating cycles in graphs (Note)	177	(1997)	287-294
Shiraishi, S., A remark on maximum matching of line graphs (Note)	179	(1998)	289-291
Shiu, W.C., see P.C.B. Lam	173	(1997)	285-289
Siemons, I.J., Kernels of modular inclusion maps	174	(1997)	309-315
Simó, E. and J.L.A. Yebra, The vulnerability of the diameter of folded n -cubes	174	(1997)	317-322
Simpson, J., see S.G. Boswell	179	(1998)	235-241
Soták, R., see M. Horňák	176	(1997)	139-148
Spicer, E.R., see D.E. Bryant,	171	(1997)	55- 75
Sprugnoli, R., see C. Corsani	180	(1998)	107-122
Steingrímsson, E., A chromatic partition polynomial	180	(1998)	357-368
Stong, R., Permutations of the positive integers with speci- fied differences	176	(1997)	223-231
Su, X.-Y., Some generalizations of Menger's theorem con- cerning arc-connected digraphs (Note)	175	(1997)	293-296
Suffel, C., see L. Petingi	179	(1998)	155-166
Sulanke, R.A., Catalan path statistics having the Narayana distribution	180	(1998)	369-389
Székai, P., Nuclei of pointsets in $PG(n, q)$	174	(1997)	323-327
Szymczak, T., see A. Brandstädt	177	(1997)	9- 16
Tan, B.P., see K.M. Koh	173	(1997)	297-298
Tardif, C., A fixed box theorem for the cartesian product of graphs and metric spaces	171	(1997)	237-248
Teo, K.L., see K.M. Koh	172	(1997)	59- 78
Teo, K.L., see Y.-H. Peng	172	(1997)	103-114
Teschner, U., New results about the bondage number of a graph	171	(1997)	249-259
Thas, J.A., Symplectic spreads in $PG(3, q)$, inversive planes and projective planes	174	(1997)	329-336
Thatte, B.D., A reconstruction problem related to balance equations (Note)	176	(1997)	279-284
Theron, W.F.D. and G. Goldenhuys, Domination by queens on a square beehive	178	(1998)	213-220
Tian, F., see H. Broersma	171	(1997)	43- 54
Tian, F., see R. Shen	177	(1997)	287-294
Tipnis, S.K., see M.J. Plantholt	177	(1997)	185-193
Tomescu, I., Maximum chromatic polynomial of 3-chro- matic blocks	172	(1997)	131-139
Tsuchiya, M., see H. Era	179	(1998)	103-109

Tuza, Z., see M. Gionfriddo	174 (1997)	125-130
Tuza, Z., see L. Milazzo	174 (1997)	247-259
Ueberberg, J., Projective planes and dihedral groups	174 (1997)	337-345
Ungerer, E., see J.H. Hattingh	171 (1997)	141-151
Vainshtein, A., see B. Shapiro	180 (1998)	345-355
Vallejo, E., Reductions of additive sets, sets of uniqueness and pyramids	173 (1997)	257-267
Veldman, H.J., see H. Broersma	171 (1997)	43- 54
Venezia, A., see D. Senato	173 (1997)	229-256
Vergnas, M.L., see G. Etienne	179 (1998)	111-119
Volkman, L., The ratio of the irredundance and domination number of a graph	178 (1998)	221-228
Vougiouklis, T., Convolutions on WASS hyperstructures	174 (1997)	347-355
Wakabayashi, Y., see M.A.C.M. Gurgel	175 (1997)	163-172
Waller, A.O., Some results on list T -colourings	174 (1997)	357-363
Wan, H., On nearly self-conjugate partitions of a finite set	175 (1997)	239-247
Wan, P.-J., D.-Z. Du and R.L. Graham, The Steiner ratio for the dual normed plane	171 (1997)	261-275
Wan, Z. and X. Wu, The weight hierarchies and generalized weight spectra of the projective codes from degenerate quadrics	177 (1997)	223-243
Wan, Z.-x., Geometry of classical groups over finite fields and its applications	174 (1997)	365-381
Wang, H., see D.M. Berman	175 (1997)	35- 40
Wang, H., see Y.-H. Peng	172 (1997)	103-114
Wargo, L., see D.M. Berman	175 (1997)	35- 40
West, D.B., Short proofs for interval digraphs (<i>Note</i>)	178 (1998)	287-292
White, N., see A.V. Borovik	179 (1998)	59- 72
Whitehead Jr., E.G., see Z.-Y. Guo	172 (1997)	53- 58
Wilf, H.S., see J.M. Nolan	179 (1998)	277-283
Wilson, B.J., see T.S. Griggs	174 (1997)	131-135
Woeginger, G.J., see Q.F. Yang	176 (1997)	233-254
Wong, S.A., Extending fixed vertex-colourings to total colourings (<i>Note</i>)	177 (1997)	295-297
Woodall, D.R., The largest real zero of the chromatic-polynomial	172 (1997)	141-153
Wu, H., On contractible and vertically contractible elements in 3-connected matroids and graphs	179 (1998)	185-203
Wu, X., see Z. Wan	177 (1997)	223-243

Yang, J., see D. Senato	173	(1997)	229–256
Yang, M., An algorithm for computing plethysm coefficients	180	(1998)	391–402
Yang, Q.F., R.E. Burkard, E. Çela and G.J. Woeginger, Hamiltonian cycles in circulant digraphs with two stripes	176	(1997)	233–254
Yang, Y., see X. Lin	175	(1997)	277–282
Ye, C. and X. Bao, New families of adjointly unique graphs	172	(1997)	155–162
Yebra, J.L.A., see E. Simó	174	(1997)	317–322
Yokomura, K., A degree sum condition on hamiltonian cycles in balanced 3-partite graphs (<i>Note</i>)	178	(1998)	293–297
Yu, Z., see X. Lin	175	(1997)	277–282
Yuster, R., Independent transversals in r -partite graphs	176	(1997)	255–261
Zaks, J., Monohedrally knotted tilings of the 3-space	174	(1997)	383–386
Zanella, C., see J. Misfeld	174	(1997)	261–269
Zaslavsky, T., Signed analogs of bipartite graphs	179	(1998)	205–216
Zhang, C., see X. Lin	175	(1997)	277–282
Zhang, C.-Q., see M. Darrah	173	(1997)	23–33
Zhang, F., see P. Hansen	176	(1997)	131–138
Zhang, H., The Clar covering polynomial of hexagonal systems with an application to chromatic polynomials	172	(1997)	163–173
Zhang, P., The characteristic polynomials of subarrange- ments of Coxeter arrangements (<i>Communication</i>)	177	(1997)	245–248
Zhao, L.-C., see R.-Y. Liu	171	(1997)	169–177
Zheng, M., see P. Hansen	176	(1997)	131–138
Zhou, H., Multiplicativity of acyclic digraphs	176	(1997)	263–271
Zhu, M., see X. Lin	175	(1997)	277–282
Zijlstra, R., see R. Gardner	171	(1997)	121–139
Zijlstra, R., see R. Gardner	175	(1997)	143–161
Zizioli, E., Embedding of incidence structures in projective spaces	174	(1997)	387–395
Zörnig, P., On the line graphs of the complete r -partite graphs	171	(1997)	277–282
Zvonkin, A., How to draw a group?	180	(1998)	403–413

Scope of the Journal

The aim of this journal is to bring together research papers in different areas of discrete mathematics. Contributions presented to the journal can be research papers, short notes, surveys, and possibly research problems. The 'Communications' section will be devoted to the fastest possible publication of the brief outlines of recent research results, the detailed presentation of which might be submitted for possible publication in DISC or elsewhere. The journal will also publish a limited number of book announcements, as well as proceedings of conferences. The journal will publish papers in combinatorial mathematics and related areas. In particular, graph and hypergraph theory, network theory, coding theory, block designs, lattice theory, the theory of partially ordered sets, combinatorial geometries, matroid theory, extremal set theory, logic and automata, matrices, polyhedra, discrete probability theory, etc. shall be among the fields covered by the journal.

Instructions to contributors

All contributions should be written in English or French, should have an abstract in English (as well as one in French if the paper is written in French), and—with the exception of Communications—should be sent in triplicate to Nelly Segal, Editorial Manager, RUTCOR, Rutgers, the State University of New Jersey, 640 Bartholomew Road, Piscataway, NJ 08854-8003, USA. The authors are requested to put their mailing address on the manuscript.

Upon acceptance of an article, the author(s) will be asked to transfer copyright of the article to the Publisher. This transfer will ensure the widest possible dissemination of information.

Manuscripts submitted for the Communications section, having at most 5 typewritten pages, should be sent to a member of the editorial board in triplicate. Detailed proofs do not have to be included, but results must be accompanied at least by rough outlines of their proofs. Subsequent publication in this journal or elsewhere of the full text of a research report, the outline of which has been published in the Communications section of our journal, is not excluded. Every effort shall be made for the fastest possible publication of Communications.

Please make sure that the paper is submitted in its final form. Corrections in the proofstage, other than of printer's errors, should be avoided; costs arising from such extra corrections will be charged to the authors.

The manuscript should be prepared for publication in accordance with instructions given in the 'Instructions to Authors' (available from the Publisher) details of which are condensed below:

1. The manuscript must be typed on one side of the paper in double spacing with wide margins. A duplicate copy should be retained by the author.
2. Special care should be given to the preparation of the drawings for figures and diagrams. Except for a reduction in size, they will appear in the final printing in exactly the same form as they were submitted by the author; normally they will not be redrawn by the printer. In order to make a photographic reproduction possible, all drawings should be on separate sheets, with wide margins, drawn large size, in Indian ink, and carefully lettered. Exceptions are diagrams only containing formulae and a small number of single straight lines (or arrows); these can be typeset by the printer.
3. References should be listed alphabetically, in the same way as the following examples:

For a book: W.K. Chen, *Applied Graph Theory* (North-Holland, Amsterdam, 1971).

For a paper in a journal: M.M.G. Fase and M. van Tol, The monetary return on investment in paintings, *Econom. Statist.* Ber. 79 (1994) 684–689.

For a paper in a contributed volume: M.O. Rabin, Weakly definable relations and special automata, in: Y. Bar-Hillel, ed., *Mathematical Logic and Foundations of Set Theory* (North-Holland, Amsterdam, 1970) 1–23.

For an unpublished paper: R. Schrauwen, Series of singularities and their topology, Ph.D. Thesis, Utrecht University, Utrecht, 1991.

Instructions for LaTeX manuscripts

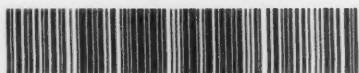
The LaTeX files of papers that have been accepted for publication may be sent to the Publisher by e-mail or on a diskette (3.5" or 5.25" MS-DOS). If the file is suitable, proofs will be produced without rekeying the text. The article should be encoded in Elsevier-LaTeX, standard LaTeX, or AMS-LaTeX (in document style "article"). The Elsevier-LaTeX package, together with instructions on how to prepare a file, is available from the Publisher. This package can also be obtained through the Elsevier WWW home page (<http://www.elsevier.nl/>), or using anonymous FTP from the Comprehensive TeX Archive Network (CTAN). The host-names are: <ftp.dante.de>, <ftp.tex.ac.uk>, <ftp.shsu.edu>; the CTAN directory is: [/tex-archive/macros/latex/contrib/supported/elsevier](#). No changes from the accepted version are permissible, without the explicit approval by the Editor. The Publisher reserves the right to decide whether to use the author's file or not. If the file is sent by e-mail, the name of the journal *Discrete Mathematics*, should be mentioned in the "subject field" of the message to identify the paper. Authors should include an ASCII table (available from the Publisher) in their files to enable the detection of transmission errors. The files should be mailed to: Ms. Paulette de Boer, Elsevier Science B.V., P.O. Box 103, 1000 AC Amsterdam, Netherlands, Fax: (31-20) 4852616. E-mail: p.boer@elsevier.nl.

Author's benefits

1. 30% discount on all book publications of North-Holland.
2. 50 reprints are provided free of charge to the principal author of each paper published.

US mailing notice—*Discrete Mathematics* (0012-365X) is published (total 16 issues) by Elsevier Science (Molenwerf 1, Postbus 211, 1000 AE Amsterdam). Annual subscription price in the USA US\$ 3488.00 (US\$ price valid in North, Central and South America only), including air speed delivery. Application to mail at periodicals postage rate is pending at Jamaica, NY 11431.

USA POSTMASTERS: Send address changes to Discrete Mathematics, Publication Expediting, Inc., 200 Meacham Avenue, Elmont, NY 11003. Air freight and mailing in the USA by Publication Expediting.



0012-365X(1998)171/180;1-C

Keep track of recently published papers
<http://www.elsevier.nl/locate/disc>

